

## PATENT ABSTRACTS OF JAPAN

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(71)Applicant : DAINIPPON INK & CHEM INC

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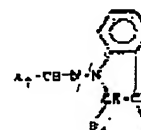
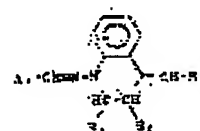
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FUKAWATASE MIDORI  
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### (54) ELECTROPHOTOGRAPHIC SENSITIVE BODY

(57)Abstract:

**PURPOSE:** To obtain an electrophotographic sensitive body high in sensitivity to semiconductor laser beams by incorporating a combination of at least one of 2 kinds of specified positive hole transfer material and at least one of a group of a specified electron transfer materials in a photosensitive layer formed by dispersing an X-type metal phthalocyanine compd. into a binder resin.

**CONSTITUTION:** The electrophotographic sensitive body is obtained by forming on a conductive substrate A the photosensitive layer B prepared by dispersing into the binder 4 made of a generally used synthetic resin, the X-type metal phthalocyanine 1, the electron transfer material, such as a disazo pigment or a cyanine dye deriv. 3, and the positive hole transfer material 2 represented by formula 1, A1 being optionally substd. aromatic hydrocarbon or such a hetero ring, and R1, R2, R3 being each H, halogen, optionally substd. alkyl, aralkyl, or aryl, independent of each other, or the positive hole transfer layer B-1 contg. the materials 2, 4, and a charge generating layer B-2 contg. the materials 1, 3 may be formed to prepare a laminate type photosensitive layerphotosensitive layer B.



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X7-002303102

(C) WPI/Derwent

AN - 1986-261070 [40]  
 AP - JP19850028310 19850218; JP19850028310 19850218; [Based on J61188543]  
 CPY - DNIN  
 DC - E13 E14 E24 G08 P84 S06 T04  
 FS - CPI;GMPI;EPI  
 IC - G03G5/04 ; G03G5/06  
 MC - E06-D01 E06-D02 E21 E23-B E25 G06-F06  
 - S06-A01A1 T04-G04  
 M3 - [01] D010 D011 D013 D014 D015 D020 D022 D040 D602 D622 E100 F010 F020  
 G001 G002 G010 G011 G012 G013 G020 G021 G040 G100 G331 H103 H141 H181  
 H2 H201 H211 H341 H541 H600 H602 H603 H608 H609 H621 H622 H623 H641 K0  
 K6 K630 M113 M115 M119 M123 M125 M129 M132 M135 M139 M210 M211 M212  
 M213 M214 M215 M216 M220 M221 M222 M223 M224 M225 M226 M231 M232 M233  
 M240 M272 M273 M280 M281 M282 M283 M311 M312 M313 M314 M315 M316 M320  
 M321 M322 M323 M331 M332 M333 M342 M412 M511 M512 M520 M530 M531 M532  
 M533 M540 M782 M903 Q313 Q346 Q454 Q615 R043  
 M4 - [02] A300 A400 A429 A500 A600 A960 C710 D000 D020 E350 M280 M320 M411  
 M417 M511 M520 M530 M540 M630 M782 M903 Q344 Q346 Q454 R043 W002 W030  
 W326 W334; 07541  
 - [03] G010 G011 G012 G013 G015 G019 G020 G022 G023 G029 G113 G221 G299  
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 R043 W003 W030 W113 W122 W131 W334  
 - [04] C116 D013 D014 D019 D621 D622 E350 F012 F014 F016 F220 G010 G013  
 G016 G019 G020 G022 G029 G100 G331 H103 H141 H142 H181 H201 H212 H720  
 H724 J523 L721 L730 L930 L951 L999 M113 M119 M126 M134 M210 M211 M212  
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 M512 M520 M521 M530 M531 M532 M533 M540 M782 M903 Q344 Q346 Q454 R043  
 W003 W004 W012 W030 W323 W334; 07309  
 PA - (DNIN) DAINIPPON INK & CHEM KK  
 PN - JP61188543 A 19860822 DW198640 013pp  
 - JP4077907B B 19921209 DW199301 G03G5/06 017pp  
 PR - JP19850028310 19850218  
 XA - C1986-112988  
 XIC - G03G-005/04 ; G03G-005/06  
 XP - N1986-195051  
 AB - J61188543 Electrophotographic photoreceptor has (A) photosensitive  
 layer contg. (a) x-type metal phthalocyanine cpd. dispersed in binderr  
 (b) positive hole transport cpd. and (c) electron transport cpd.  
 - Cpd. (b) is a cpd. of general formula (I) or (II). In (I), A1 is  
 (un)subst. aromatic hydrocarbon or aromatic heterocyclic; R1, R2 and  
 R3 are each H, halogen or (un)subst. alkyl, aralkyl or aryl. In (II),  
 A2 is (un)subst. aromatic hydrocarbon or aromatic heterocyclic; R4  
 and R5 are each H, halogen, (un)subst. alkyl, aralkyl or aryl.  
 - Cpd. (c) is disazo pigments, perylene pigments, anthanthrone  
 pigments, thiapyrylium salt deriv., pyrylium salts deriv. or cyanine  
 dye deriv.  
 - Photoreceptor comprises, e.g. a conductive base plate and a  
 photosensitive layer in which (a), (b), (c) and an electron-acceptive  
 cpd. are dispersed in binder. Charge generation cpd. is, e.g. benzoic  
 acid, halonapthoquinone or 2,6-dichlorobenzoquinone. Content of (a) is  
 0.05-90 pref. 15-50 wt.% with respect to photosensitive layer. Content  
 of (b) and (c) and an electron acceptive cpd. is 0.001-90, pref.

(C) WPI/Dorwent

15-50, 0.1-90, pref. 10-30 and 0.001-90, pref. 0.1-10 wt.%, respectively, with respect to (a).

- **USE/ADVANTAGE** - Electrophotographic photoreceptor has sufficient sensitivity in long wavelength range of 780-900 nm and little residual electric potential. Photoreceptor is useful for laser beam printer and various optical recording devices using semiconductor laser, etc.  
(13pp Dwg.No.0/0)

**IW - ELECTROPHOTOGRAPHIC PHOTORECEIVER USEFUL LASER BEAM PRINT  
PHOTORECEIVER LAYER CONTAIN TYPE METAL PHTHALO CYANINE COMPOUND;  
DISPERSE BIND POSITIVE**

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**NC - 001**

**OPD - 1985-02-18**

**ORD - 1986-08-22**

**PAW - (DNIN ) DAINIPPON INK & CHEM KK**

**RRL - 07541 07309**

**TI - Electrophotographic photoreceptor useful for laser beam printer - has photoreceptive layer contg. X-type metal phthalo:cyanine cpd. dispersed in binder and positive**

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